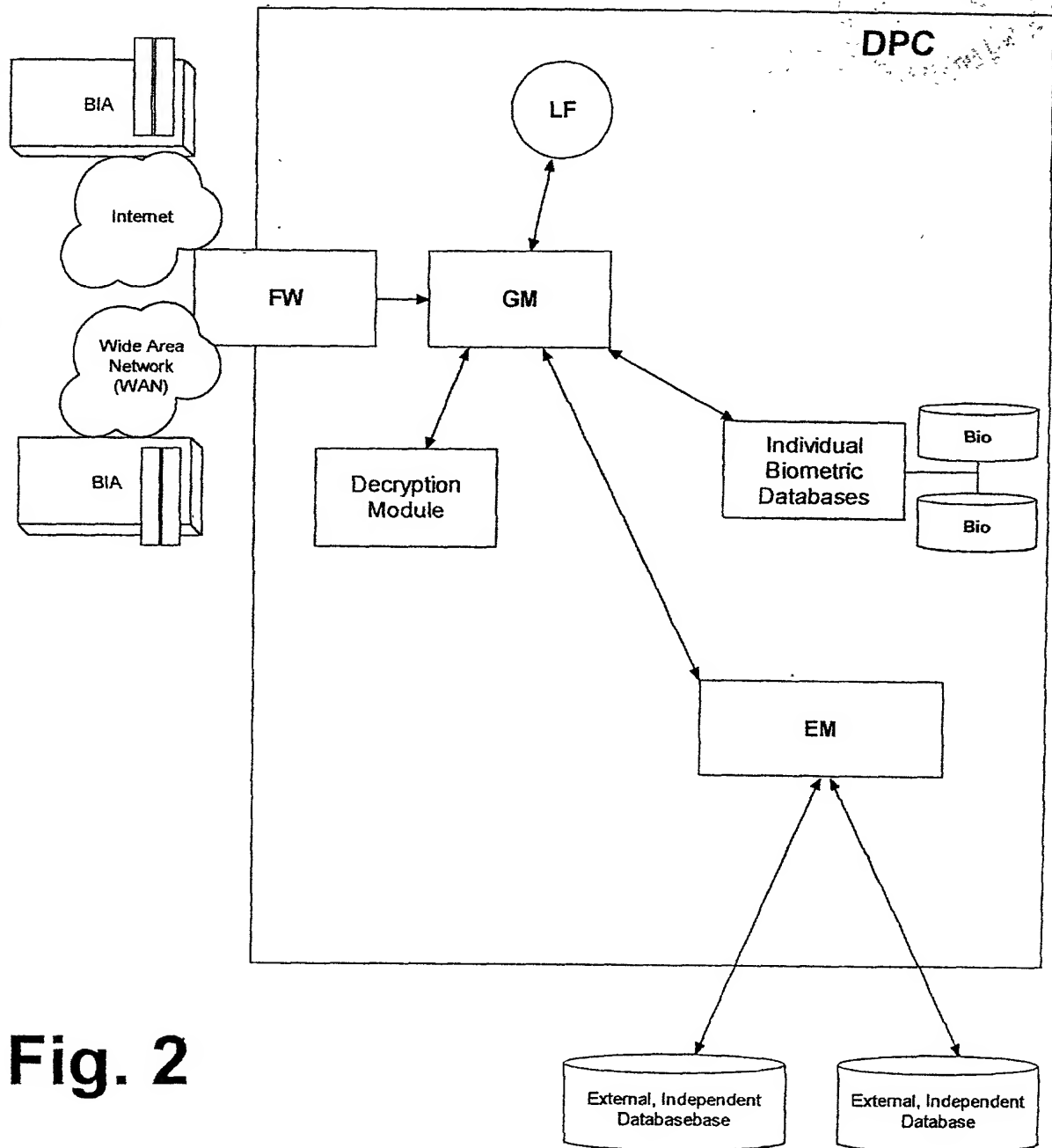


FIG. 1

200250-28695001



**Fig. 2**

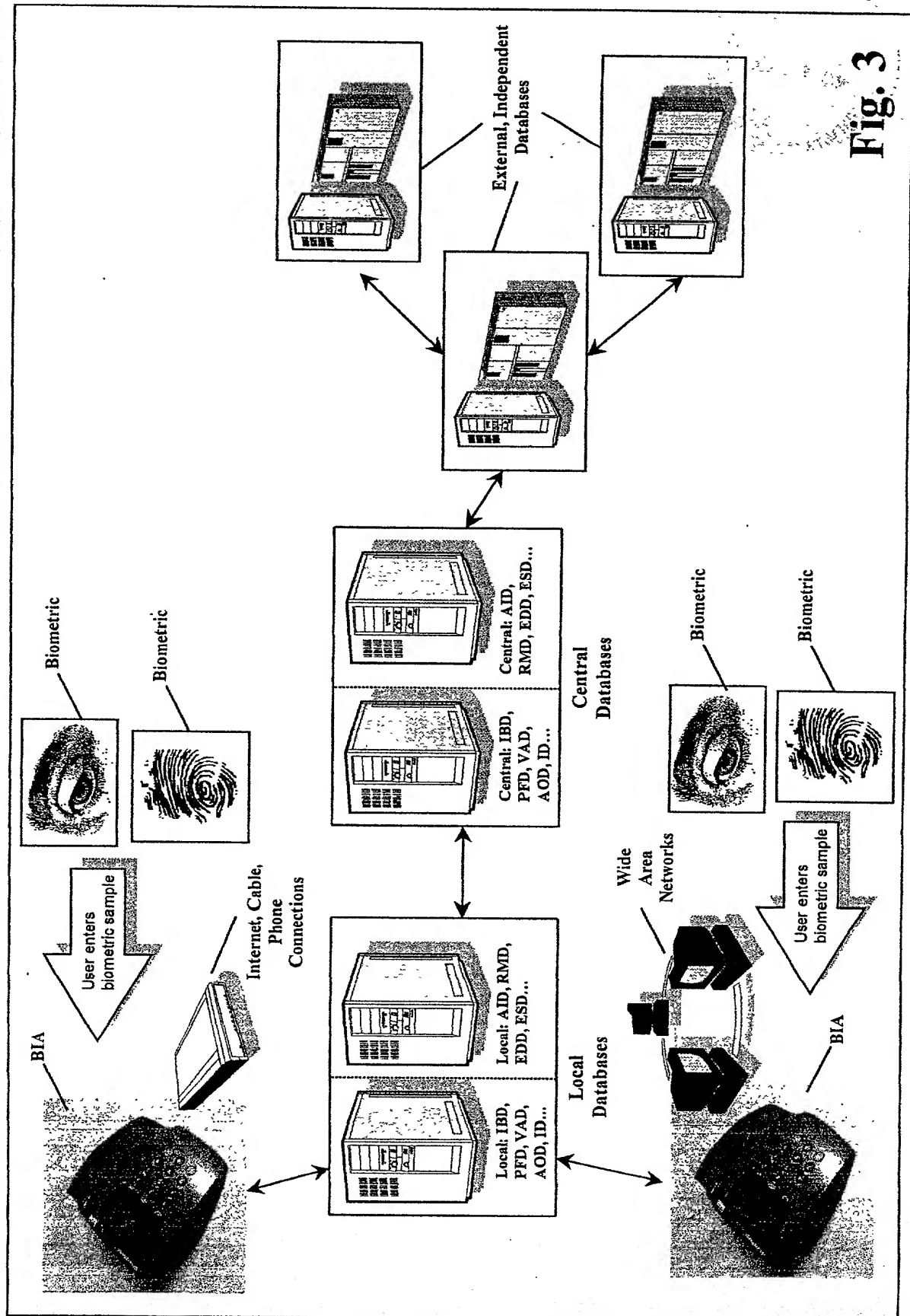


Fig. 3

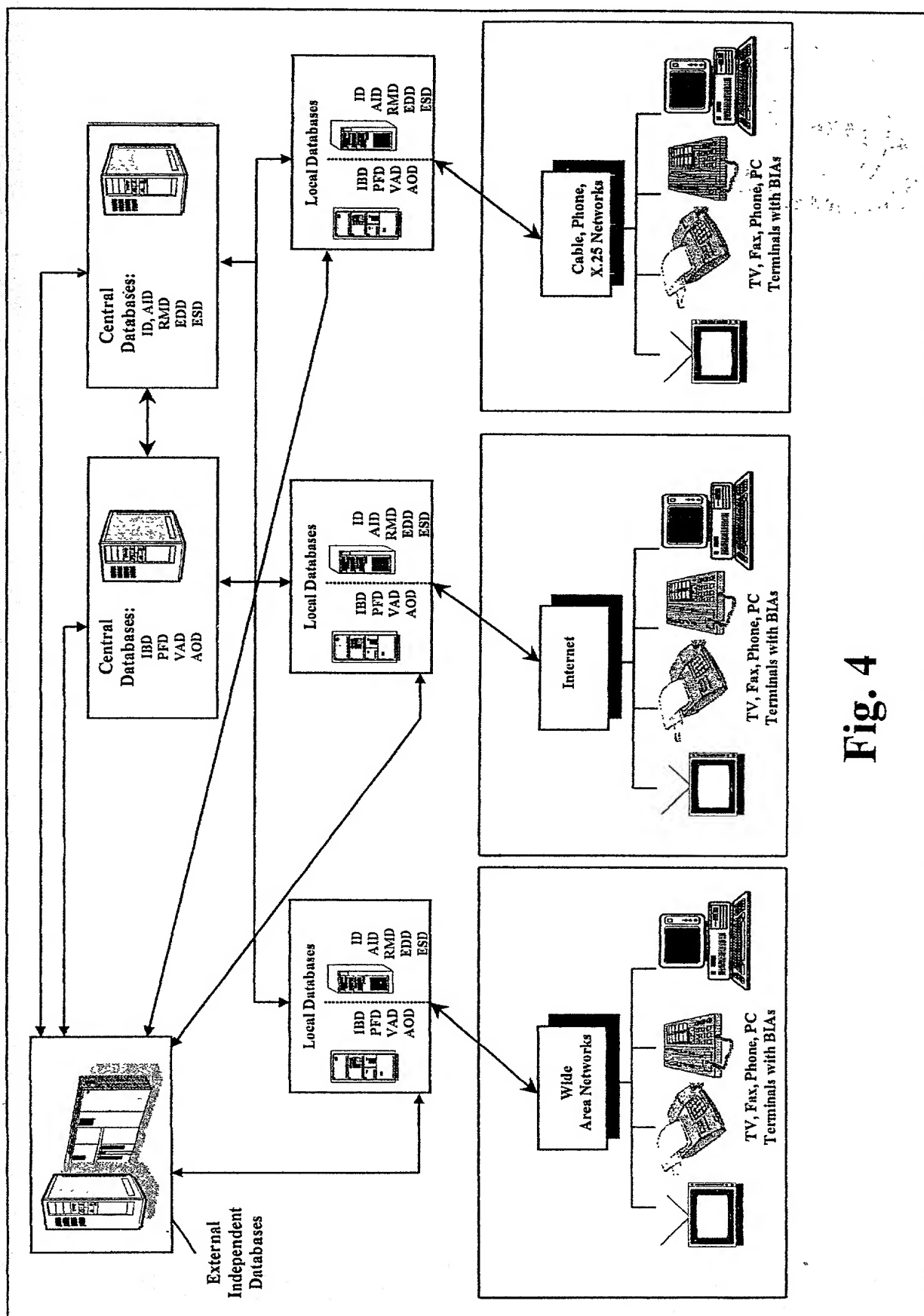


Fig. 4

200250-28695001

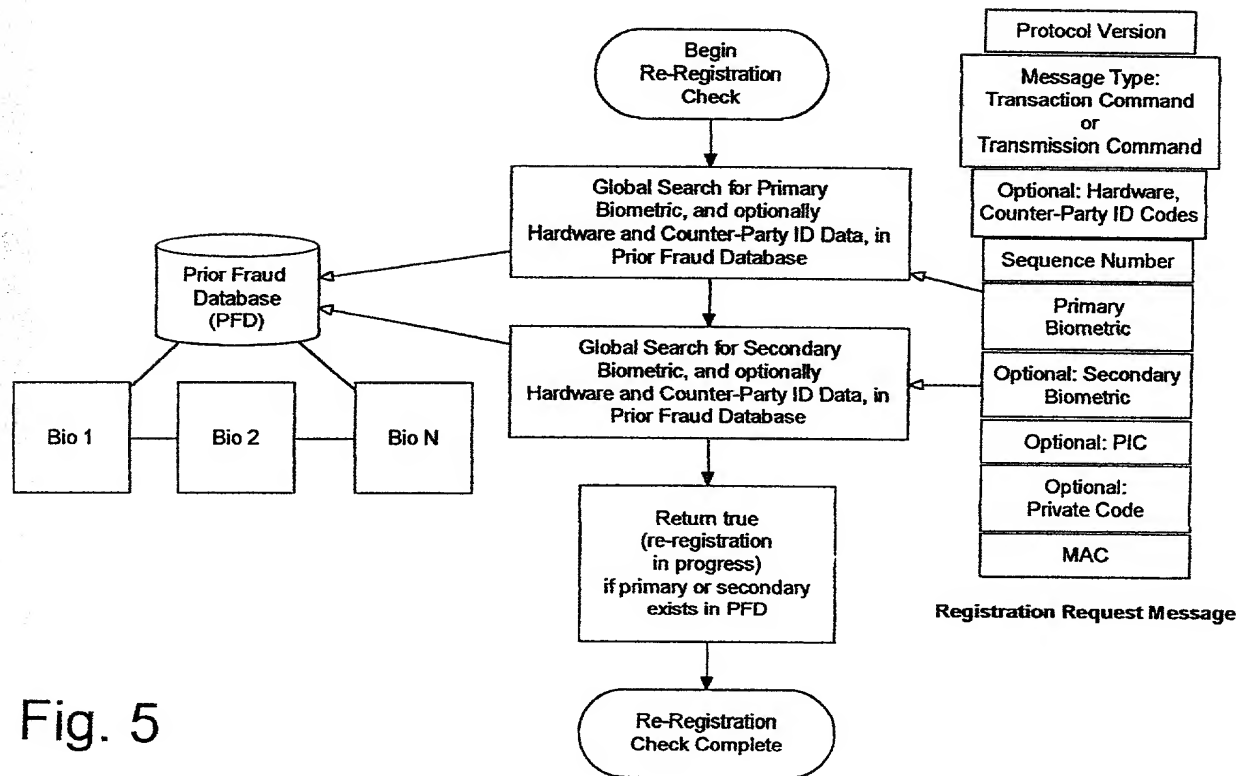


Fig. 5

**FIG. 6**

The diagram illustrates a payment system architecture with the following components and data flows:

- Request Packet:** Sent from the **FW** (Frontend) to the **GM** (Gateway Module).
- Response Packet:** Sent from the **GM** to the **FW**.
- GM (Gateway Module):** The central processing unit that interacts with various databases and modules.
  - Validate Issuer:** Interacts with the **ID** (Issuer Database).
  - Validate Remote Merchant:** Interacts with the **RMD** (Remote Merchant Database).
  - Validate Authorized Individual:** Interacts with the **AID** (Authorized Individual Database).
  - Prior Fraud Checks:** Interacts with the **PFD** (Prior Fraud Database).
  - MACM (MAC Module):** Receives **PINS** and **PIN Groups** from the **GM** and sends **MACs** back.
  - PGL (PIN Group List):** Receives **PIN Groups** from the **GM** and sends **PIN Groups** back.
  - IML (Initial Key List):** Receives **PIN Groups** from the **GM** and sends **PIN Groups** back.
  - MDM (Master Data Module):** Receives **Keys** from the **GM** and sends **Keys** back.
  - SNM (Sequence Number Module):** Receives **Sequence nos.** from the **GM** and sends **Sequence nos.** back.
- Cache Data:** A storage area that receives data from the **MDM** and sends it to the **GM**.
- Databases:** Represented by cross-hatched boxes: **ID**, **RMD**, **AID**, **PFD**, **Initial Key List**, **VAD**, and **AOD**.
- Legend:**
  - Request Packet:** Solid line with arrow.
  - Response Packet:** Dashed line with arrow.
  - Computer Hardware:** Solid rectangle.
  - Database:** Cross-hatched rectangle.
  - Software Module:** Oval.
  - Dedicated Database Machine:** Rectangle with a cross-hatched border.
  - Mirrored Computer Hardware:** Two solid rectangles side-by-side.
  - Mirrored Database:** Two cross-hatched rectangles side-by-side.

KEY

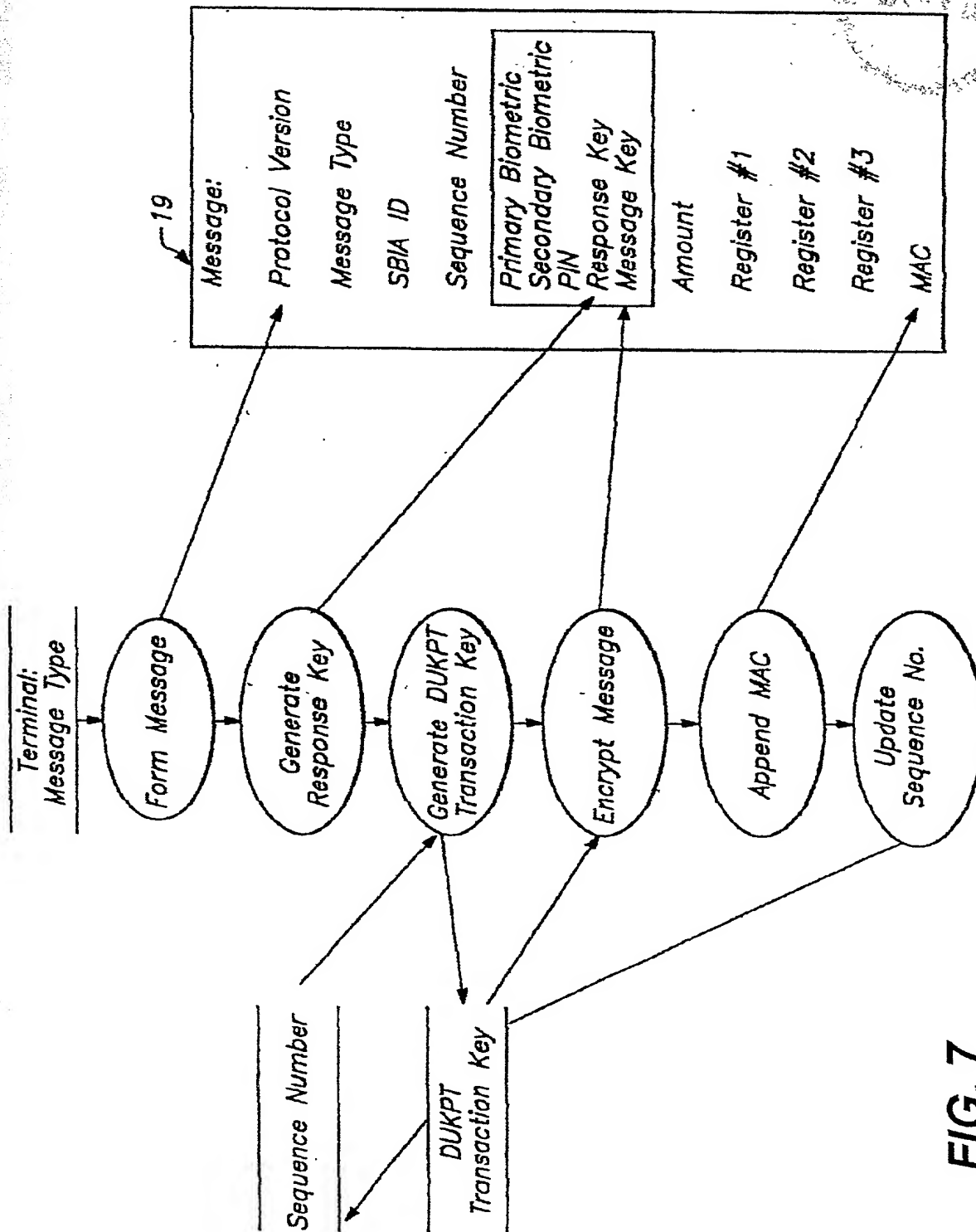


FIG. 7

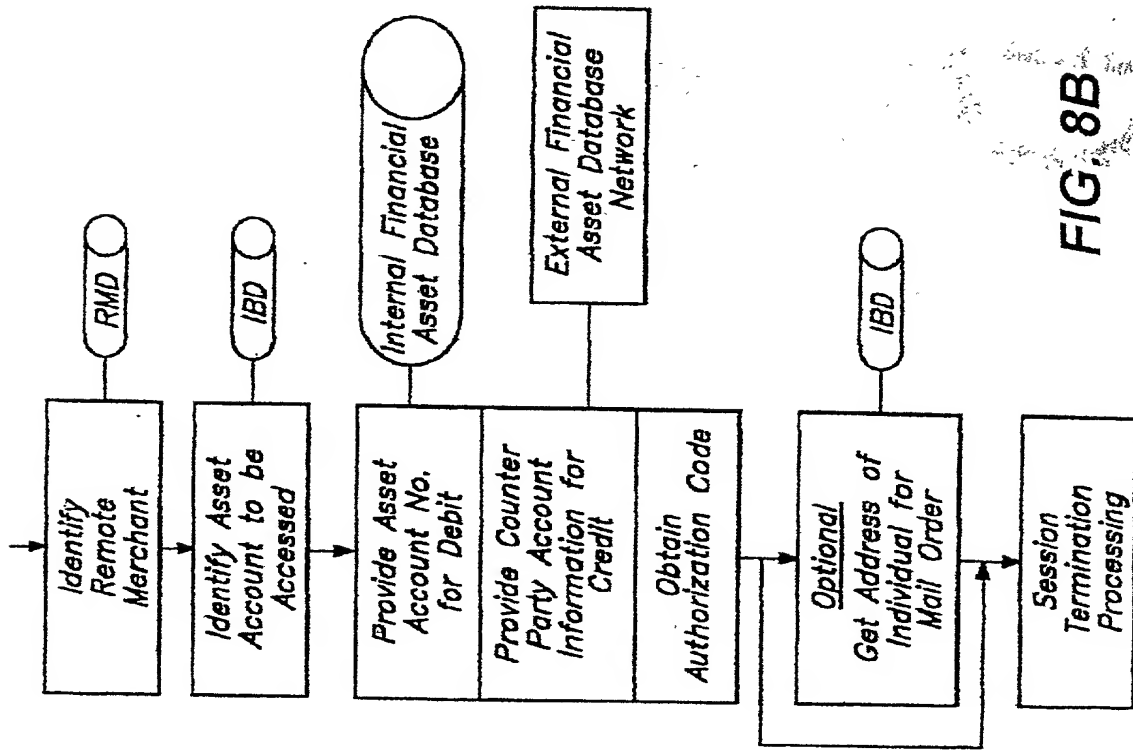


FIG. 8B

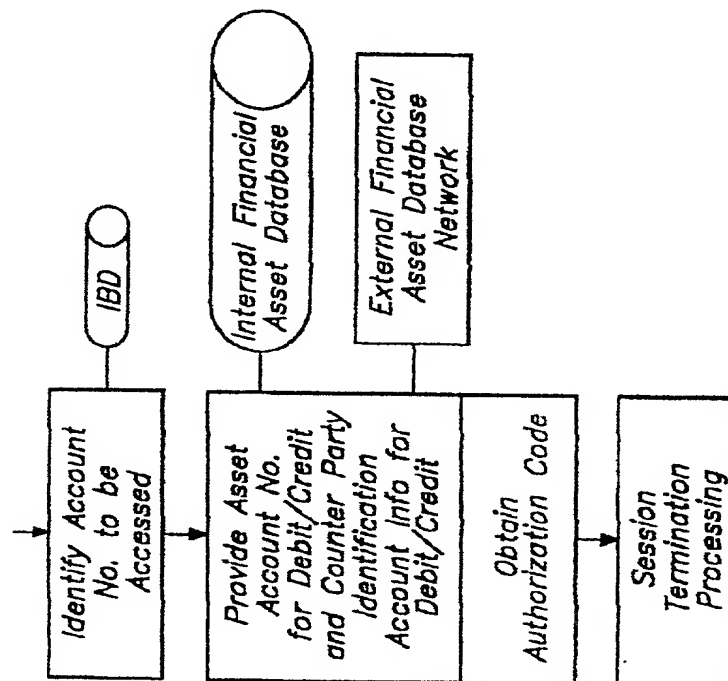
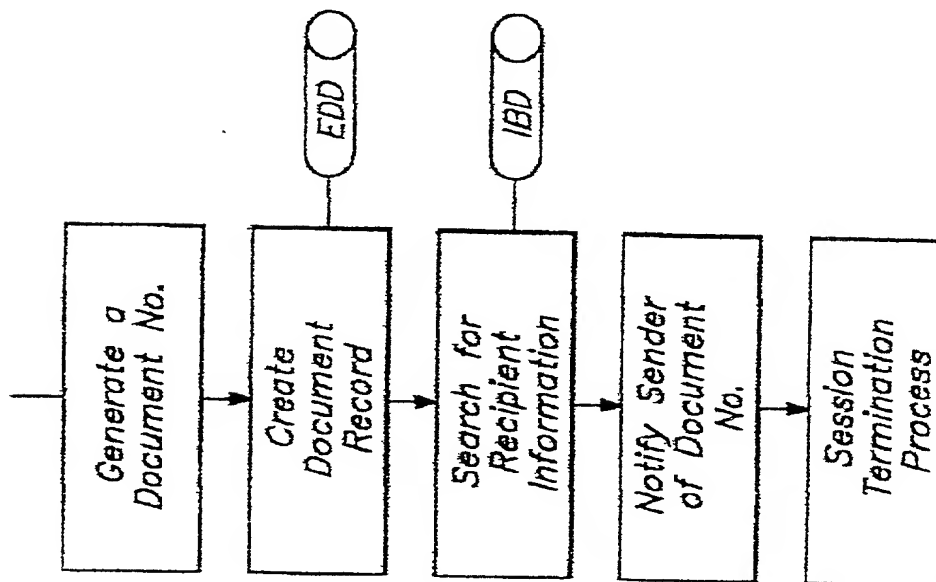
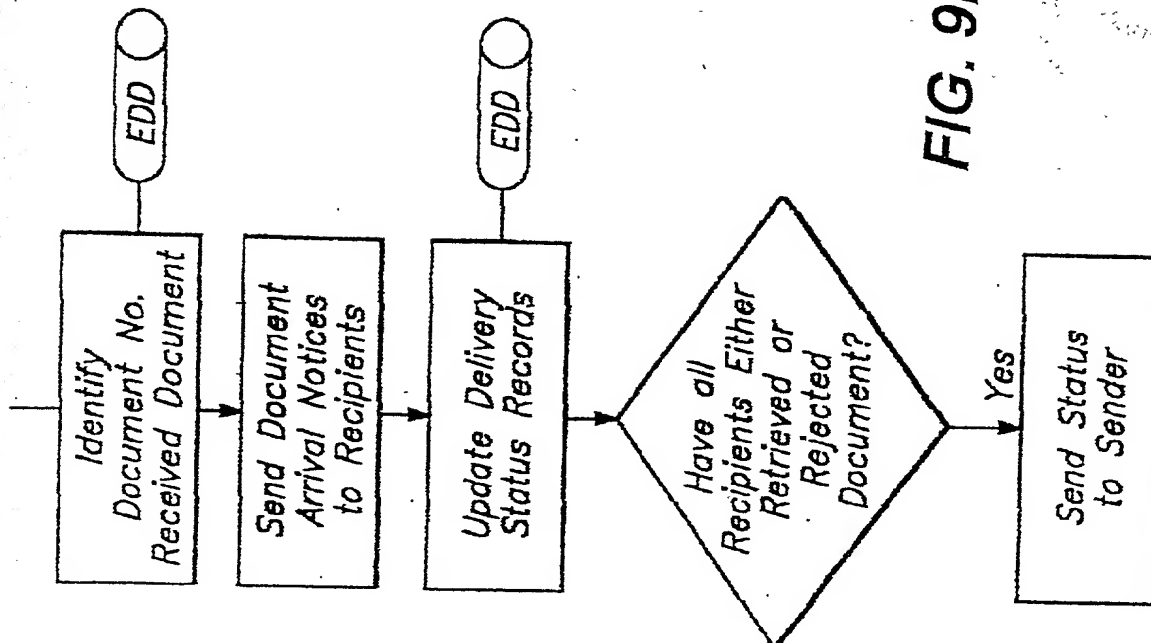


FIG. 8A



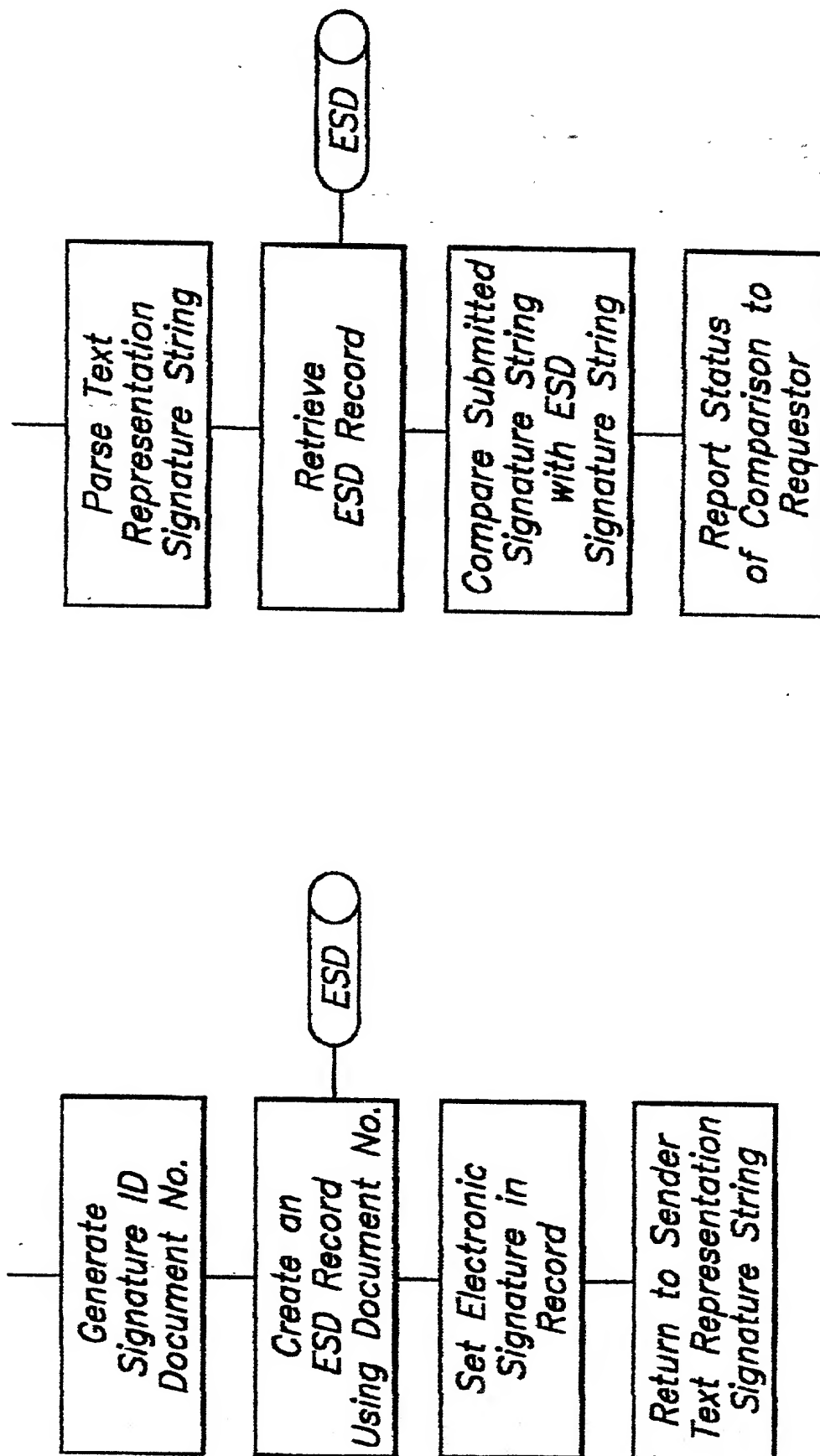


FIG. 10A

FIG. 10B